

ABSTRACT
A NONLINEAR OPTICAL DEVICE

5 There is provided a non-linear optical device for enhancing the bandwidth
accessible in the nonlinear generation of an optical signal. The device comprises a
planar optical waveguide, the planar optical waveguide being operative to generate an
optical output from an optical input having an input bandwidth by means of a non-linear
optical process, the optical output having a wavelength within an accessible bandwidth,
wherein the planar optical waveguide is operative to enhance the accessible bandwidth
10 such that the ratio of the accessible bandwidth to the input bandwidth is at least 4. The
device is particularly applicable to broad optical continuum generation, but may also
be used in a parametric oscillator or amplifier arrangement with broad tuning range.

15 [Figure 1]